

TRANSPORTATION

This chapter describes patterns in Bellevue neighborhoods relating to transportation. Transportation is one of the most important issues within Bellevue and the entire Central Puget Sound region. The maps and text in this chapter outline the distribution of commuting and vehicle ownership patterns throughout the city. Examining these patterns provides insight on growth management and land use trends and areas that are in need of greater public transit service or other transportation options.

Commuting to Work

The Census asked respondents on the long form about the transportation mode commonly used for their trip to work (driving alone, carpooling, public transit, etc.) and the average amount of time it took them to get to work (based on the previous week's commute). This information helps the City and other agencies responsible for transportation to better understand infrastructure needs and better assess the effectiveness of alternative choices to the single-occupant vehicle (SOV). These factors also help gauge the success of growth management policies (which encourage residents to live in closer proximity to work and services).

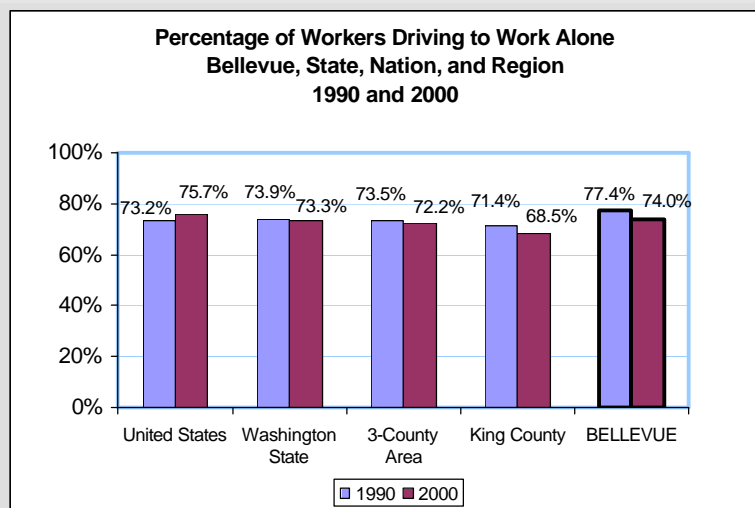
Census commute information relates to *residents of Bellevue* who are working, not to those who work in Bellevue (although, as noted in the Economics chapter, some who live in Bellevue also work in Bellevue). This section contains the following maps:

- Percentage of working Bellevue residents who drive alone to work
- Pair of Maps:
 - ♦ Percentage of working Bellevue residents who commute via carpool
 - ♦ Percentage of working Bellevue residents who commute via public transit
- Mean commute time for working Bellevue residents

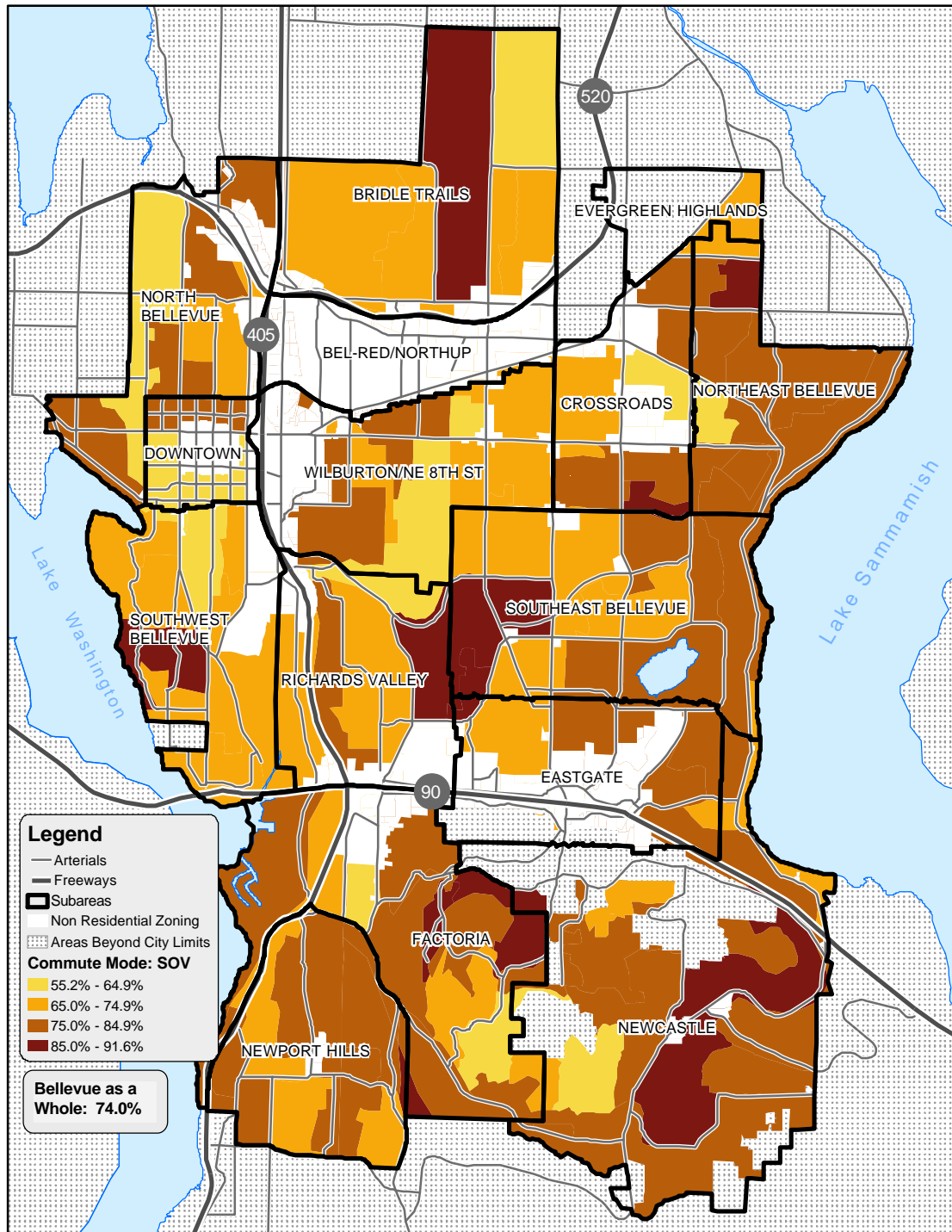
HIGHLIGHTS FROM VOLUME 1: CITYWIDE & REGIONAL TRENDS

Commuting to Work

- The percentage of Bellevue workers who commuted to work alone decreased between 1990 and 2000. This reflects a similar trend that occurred in King County, the region, and the state. This trend was different than in the country as a whole and in most other states, where percentages of commuters traveling by single-occupant vehicle (SOV) increased.
- Mean commute times stayed relatively stable for Bellevue residents between 1990 and 2000, despite worsening traffic congestion in the Puget Sound region. Several factors may have influenced this, including an increase in employment opportunities on the Eastside for Bellevue and other Eastside residents.



Percentage of Working Bellevue Residents* Who Drive Alone to Work Bellevue by Census Block Group: 2000



*Based on working population age 16 and over.

Travel to Work via Single-Occupant Vehicle

Bellevue as a Whole – 2000

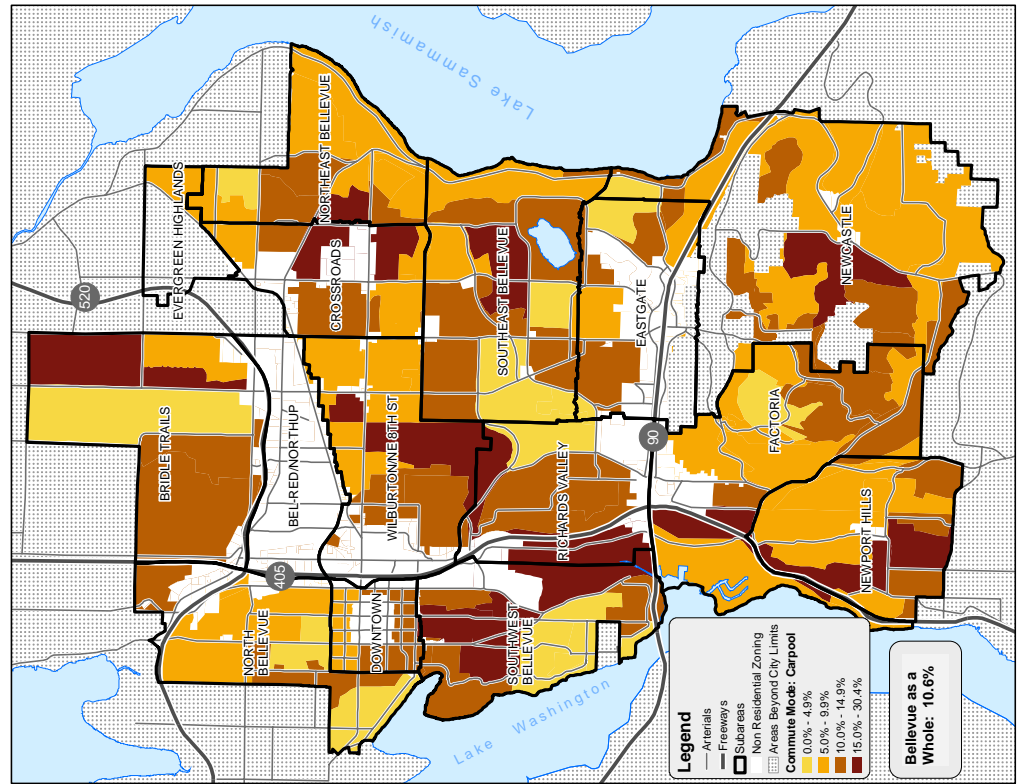
- In 2000, 74.0 percent of Bellevue residents who were working (and were age 16 and over) commuted to work via single-occupant vehicle (SOV), that is, they drove alone to work. This represented a decrease from 77.4 percent in 1990. This was consistent with the trend in King County and Washington State generally, where the percentage of workers commuting via SOV also decreased between 1990 and 2000. This did not reflect the national trend; between 1990 and 2000, Oregon and Washington were the *only two states* in the nation where SOV commuting percentages decreased between 1990 and 2000.
- Bellevue's 74.0 percent of workers who commuted via single-occupant vehicle was higher than the overall King County figure of 68.7 percent. The county percentage was greatly influenced by the city of Seattle, where only 56.2 percent of commuters traveled to work via SOV, by far the lowest rate in the region. The rate in the balance of the Eastside was 76.6 percent, slightly higher than the rate in Bellevue.
- In addition to relying on the single occupant vehicles less commonly than in 1990 (and instead choosing methods such as public transit, carpooling, etc.), a greater (though still small) proportion of working Bellevue residents in 2000 worked at home than they did in 1990 (5.1 percent in 2000 v. 3.9 percent in 1990).

Bellevue by Neighborhood – 2000

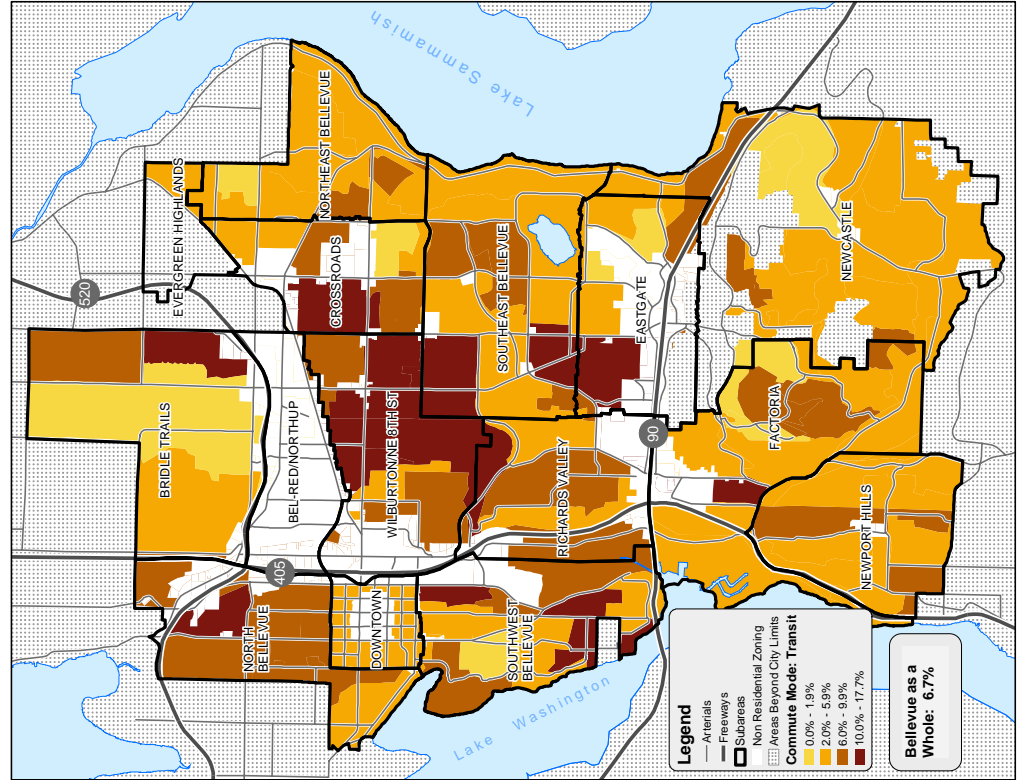
- It is interesting to note that there were often very divergent rates within the same subarea (for example, in Factoria, Newcastle, Wilburton/N.E. 8th Street), with block groups having high and low SOV rates directly adjacent to one another. This is in part explained by the disparate work place locations and travel patterns that can exist for residents within the same neighborhood. People living in the same part of the city can and do work in completely different parts of the region, and while one person may have good transit or carpool access to their place of work, their neighbor may not.
- Within the Downtown area, SOV rates were lower than the SOV rate for the city as a whole. This was largely influenced by the relatively large proportion of working Downtown residents who walked to work: (16.4 percent of working Downtown residents walked to work, as opposed to 2.6 percent of working residents in Bellevue as a whole). This was largely due to the high number of jobs within the Downtown area. Downtown Bellevue has more than 30,000 employees and very high employment densities. It should also be noted that because Downtown has a high percentage of seniors (see the Households and Age chapter), the percentage of Downtown residents in the labor force is low (see the Economics chapter).
- Approximately 5 percent of Bellevue workers worked at home in 2000, but in many neighborhoods, including portions of the North Bellevue, Newcastle, Factoria, and Wilburton/N.E. 8th Street subareas, the number exceeded 10 percent. This influenced SOV commuting rates in some parts of Bellevue, as indicated by the fact that areas that had 10 percent or more of workers working at home generally had lower-than-average SOV commuting rates.

Percentages of Working Bellevue Residents* Who Commute Via Carpool and Public Transit Bellevue by Census Block Group: 2000

Percentage Commuting via Carpool



Percentage Commuting via Public Transit



*Based on working population age 16 and over.

Public Transit and Carpooling

Bellevue as a Whole – 2000

- The number and percent of carpoolers increased in Bellevue between 1990 and 2000. In 2000, 10.6 percent of workers commuted via carpooling or vanpooling, compared to 9.2 percent in 1990.
- The public transit commuting rate was about the same for Bellevue workers in 2000 as in 1990. In 2000, 6.7 percent of Bellevue workers commuted to work via public transit, compared to 6.6 percent in 1990.
- Public transit and carpool rates for Bellevue residents in 2000 were slightly below the rates for King County as a whole. In the county as a whole, 9.6 percent of workers commuted via public transit, while 12.0 percent of workers commuted via carpool or vanpools. The overall public transit ridership rate in King County was heavily influenced by Seattle, which had a high number and percentage of its population in the workforce as well as a high rate for transit ridership (17.6 percent of Seattle workers commuted by public transit in 2000). Carpooling rates in the region and in most major cities in King County tended to be in the 10 to 15 percent range.

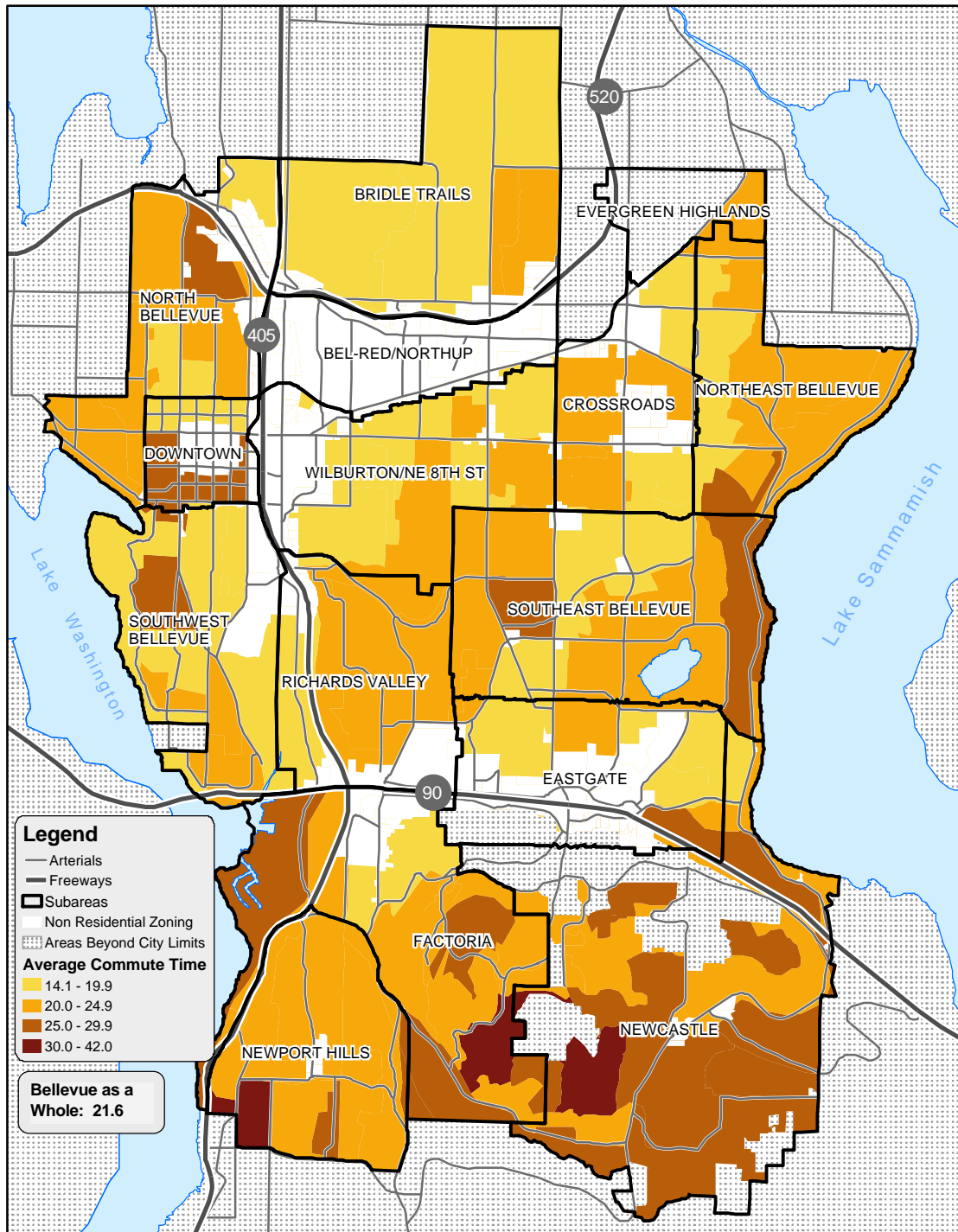
Bellevue by Neighborhood – 2000

- While some neighborhoods in Bellevue (such as in the Wilburton/N.E. 8th Street subarea and portions of the Bridle Trails subarea) had relatively high rates of working Bellevue residents commuting by public transit and carpooling, the maps show somewhat disparate patterns for the two commute modes. Public transit ridership correlated fairly directly to residential density, with areas zoned for multifamily development having relatively high transit ridership rates (10 percent and above). One exception to this pattern was in Downtown, which despite high residential densities did not have high rates of public transit commuting. This is likely affected by the high percentage of Downtown residents who walked to work. (As mentioned in the previous section, 16.4 percent of working Downtown residents walked to work, as compared to 2.6 percent of working residents in the city as a whole who did so.)

Carpooling rates, on the other hand, did not appear to be as closely tied to density. Many predominantly single-family areas, including portions of the Newport Hills, Newcastle, and Southeast Bellevue subareas, had relatively high (15 percent or above) rates of carpooling. Carpooling rates can be influenced by many factors that do not relate directly to other demographic factors, such as convenient access to co-workers or policies implemented at the work place, such as costs for parking and preferred parking arrangements for carpoolers.

- In addition to the correlation between public transit commuting rates and residential density, there was also (not surprisingly) a high correlation between public transit commuting and vehicle availability (see next section of the chapter). Neighborhoods with relatively high percentages of households that owned no vehicles, such as Crossroads, had relatively high percentages of transit commuters.

Mean Commute Time to Work in Minutes For Working Bellevue Residents* Bellevue by Census Block Group: 2000



*Based on working population age 16 and over who do not work at home.

Mean Commute Time

Bellevue as a Whole – 2000

- The mean (i.e., average) commute time to work for working Bellevue residents stayed very stable between 1990 and 2000. In 2000, the mean commute time was 21.6 minutes, as opposed to 21.4 minutes in 1990.
- The mean commute time for Bellevue workers in 2000 was lower than the mean for working residents countywide, which was 26.5 minutes. The number for the county as a whole represented an increase from 24.2 minutes in 1990. Interestingly, mean commute times for residents from all the major close-in Eastside cities (Bellevue, Kirkland, and Redmond) were below the King County mean. This was likely influenced by the high rate of employment growth that took place in East King County during the 1990s; for example, the number of jobs in Bellevue increased 50 percent between 1990 and 2000. Mean commute times tended to be higher for cities in South King County and cities in the fringe areas of the county. Generally within the Puget Sound region, the growth in the number of vehicle miles traveled (VMT) per employee was much lower in the most recent decade than it was in the 1980s.¹

Bellevue by Neighborhood – 2000

- There was wide variation within Bellevue neighborhoods in mean commute time, with some areas averaging commutes of less than 15 minutes and others upwards of 40 minutes. Generally speaking, areas within the closest proximity to employment centers (such as Downtown Bellevue, the Bellevue-Redmond Road corridor, Overlake) had lower mean commute times.
- It is interesting to examine the relationship between mean commute times and percentage of commuters who commute via single-occupant vehicle (see previous map). Some areas with very high percentages (85 percent and over) of commuters traveling by SOV, such as parts of the Richards Valley, Southeast Bellevue, Southwest Bellevue, and Bridle Trails subareas, had relatively low mean commute times. This suggests that not only proximity to employment and major transportation corridors, but in some cases mode of transportation, influenced commute times.
- It should be noted again that an increasing number and percentage of Bellevue workers worked at home in 2000. In some neighborhoods this percentage exceeded 10 percent of all workers. The mean commute time data did not take this group of workers into consideration.

¹ For more information on this trend, see the Puget Sound Regional Council's Trend Report, "Growth in Traffic and Vehicle Miles Traveled," <http://www.psrc.org/datapubs/pubs/trends/t2sep03.pdf>.

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Vehicle Ownership

Vehicle ownership information is an important indicator of the degree of transportation choices within a community and how conveniently residences and services are located within proximity of one another. Vehicle ownership patterns and trends are also interesting to analyze, in that they reveal the influence of a variety of other demographic factors, such as household composition and size, age, and income. The Census Bureau collected vehicle availability data on the long form questionnaire.

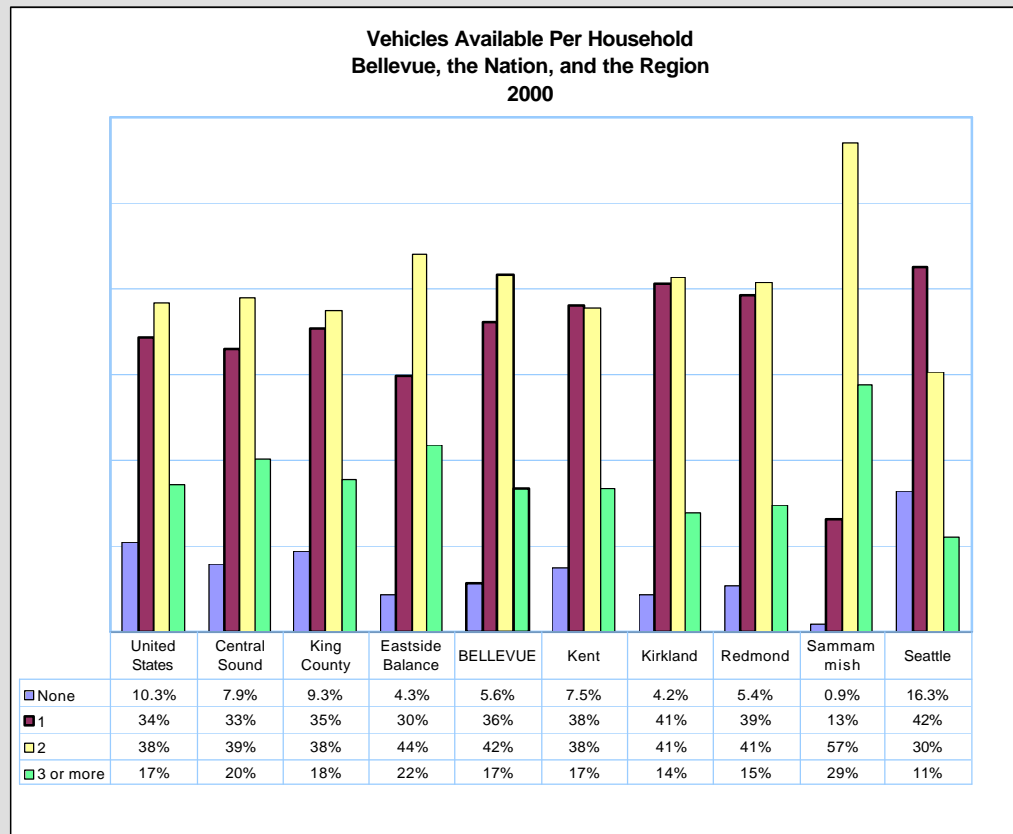
This section of the report contains two maps outlining Bellevue's patterns relating to vehicles available for Bellevue households:

- Proportion of households that do not have a vehicle available
- Proportion of households that have either one vehicle or no vehicle available

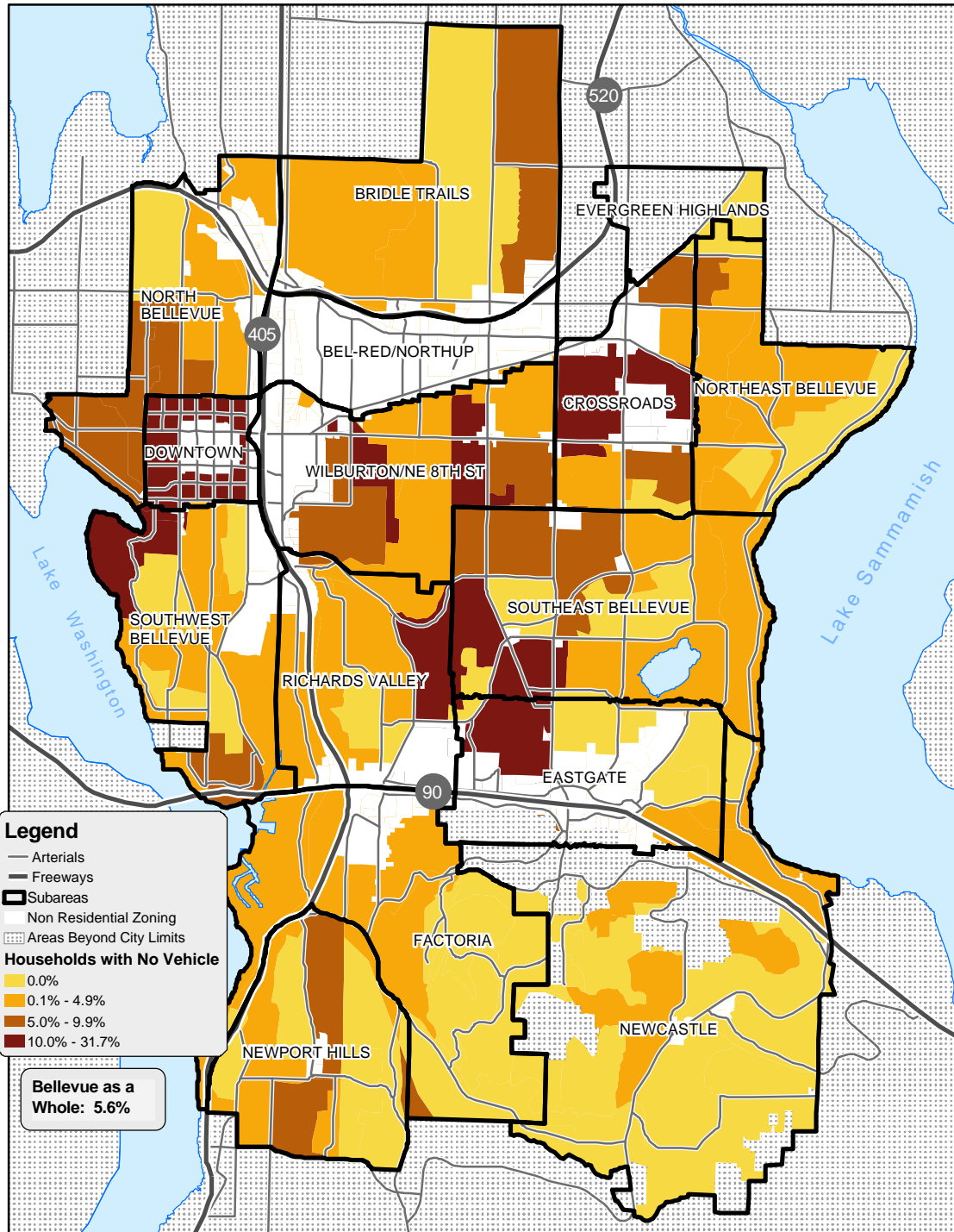
HIGHLIGHTS FROM VOLUME 1: CITYWIDE & REGIONAL TRENDS

Vehicle Ownership

- Vehicle ownership patterns shifted somewhat between 1990 and 2000, with a higher percentage of Bellevue households overall owning either one or no vehicle in 2000.
- In 2000, Bellevue households were *less* likely to have two or more vehicles than were households in the balance of the Eastside and the Puget Sound region as a whole, but were *more* likely to have two or more vehicles than were households in Seattle and also in King County as a whole.



Percentage of Households That Do Not Have a Vehicle Available Bellevue by Census Block Group: 2000



Households with No Vehicle

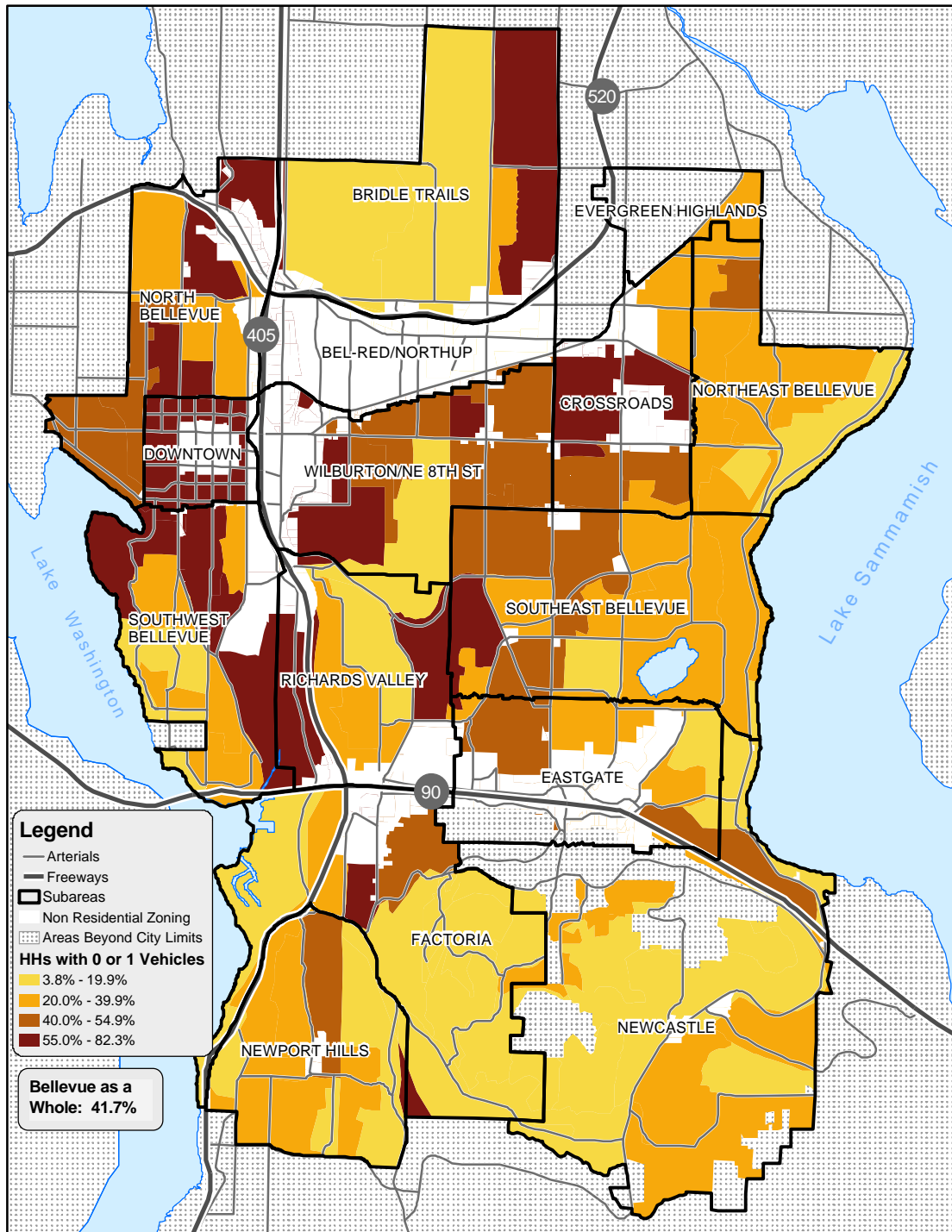
Bellevue as a Whole – 2000

- Approximately 5.6 percent of all Bellevue households in 2000 had no vehicle available. This represented 2,574 households. This was an increase from 1990, when 1,615 households, or 4.5 percent, had no vehicle.
- The 5.6 percent of Bellevue households that had no vehicle available was higher than in the balance of King County's Eastside, where 4.3 percent of households were without a vehicle. The overall proportion of households in King County without a vehicle in 2000 was 9.3 percent. As with other transportation-related characteristics, the proportion of households in King County without a vehicle was heavily influenced by Seattle, where 16.3 percent of households in 2000 had no vehicle available.
- In Bellevue, households headed by a senior were less likely to have a vehicle available than were households overall: 13 percent of senior-headed households did not have a vehicle in 2000.

Bellevue by Neighborhood – 2000

- Households with no vehicle tended to be clustered in areas with higher residential densities. Neighborhoods with relatively high percentages (10 percent or more) of households that had no vehicle available included the Downtown and Crossroads subareas, and portions of the Richards Valley, Southeast Bellevue, and Wilburton/N.E. 8th Street subareas. The high percentage (17.2 percent) of households in Downtown who did not have a vehicle was likely related not just to the higher densities found there but also to the high percentage of seniors who live there (see Households and Age chapter). As noted above, in Bellevue generally, households headed by a senior were much more likely to *not* have a vehicle available.
- Patterns for households without a vehicle available were also, not surprisingly, linked to income patterns. Areas with higher percentages of households without a vehicle correlated strongly with areas with lower median household incomes (see Economics chapter). The costs associated with owning a vehicle can often represent a significant financial hardship to a household with constrained incomes.

Percentage of Households That Have Either One or No Vehicle Available Bellevue by Census Block Group: 2000



Households With One or No Vehicle

Bellevue as a Whole – 2000

- In 2000, 41.7 percent of all Bellevue households had either one vehicle or no vehicle available. Of this, the majority (36.1 percent of households *overall*) had one vehicle available.
- As noted in the previous section, the percentage of households with no vehicle increased from 1990 to 2000 (from 4.5 percent to 5.6 percent); the percentage of households with one vehicle available also grew during this time (from 31.9 percent to 36.1 percent). This took the combined proportion of households that had either one vehicle or no vehicle available from 36.4 percent to 41.7 percent—an increase of more than 5 percentage points.
- Bellevue's vehicle availability rates were similar to those in other inner-ring Eastside cities, such as Redmond and Kirkland, both of which also had growing percentages of households with one vehicle available. In the balance of the Eastside, households were more likely to have two or more vehicles available than were households in Bellevue, Kirkland, or Redmond.

Bellevue by Neighborhood – 2000

- There was wide variation with regard to vehicle availability within Bellevue. While 41.7 percent of households in Bellevue as a whole had one or no vehicle available, there are many parts of the city where 55 percent or more of households fell into this category. These areas include Downtown, and portions of the Wilburton/N.E. 8th Street, Crossroads, Southeast Bellevue, Southwest Bellevue, Richards Valley, and Factoria subareas. Conversely, there are other areas, such as parts of the Newport Hills, Factoria, Newcastle, and Bridle Trails subareas, where less than 20 percent of households fell within this category.
- There are many other factors that correlated with vehicle availability rates. These include household size (areas with a large percentage of one-person households, such as Downtown, had lower vehicle availability rates), and—as previously noted—age (see the Households chapter), income (see the Economics chapter), and housing densities.
- There was not a particularly strong correlation between vehicle availability patterns and commute times. Commute times, as was noted previously, seem to be most influenced by proximity to employment centers and major regional transportation corridors.

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